FCC / ISED Test Report

For:
Motive Technologies, Inc.

Brand:
Motive Technologies, Inc.

Marketing Name:
Omnicam

Model #:
OC-1

Product Description:
Is a vehicle camera, designed to be powered by vehicle power (12 or 24 V DC). It is designed to be always on and recording video while the vehicle is on. It will upload small video files to Motive back-end servers via LTE on request.

FCC ID: 2AQM7-OC1
IC ID: 24516-OC1

Applied Rules and Standards:
47 CFR Part 15.407 (UNII) & 5 GHz (UNII)
RSS-247 Issue 2 (DTSs) & (LE-LAN), and RSS-Gen Issue 5

REPORT #: EMC_KPTRK_040_23001_FCC_15_407_ISED_UNII3

DATE: 6/28/2023

A2LA Accredited

IC recognized # 3462B

***CETECOM* Inc.**
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1 Assessment

The following device was evaluated against the applicable criteria specified in FCC rules Parts 15.407 of Title 47 of the Code of Federal Regulations and the relevant ISED Canada standard RSS-247.

No deviations were ascertained.

According to section 5 of this report, the overall result is Pass.

Company	Description	Model #
Motive Technologies, Inc.	Is a vehicle camera, designed to be powered by vehicle power (12 or 24 V DC). It is designed to be always on and recording video while the vehicle is on. It will upload small video files to Motive back-end servers via LTE on request.	OC-1

Responsible for Testing Laboratory:

Arndt Stoecker

Digitally signed by: Arndt Stoecker
DN: CN = Arndt Stoecker email = arndt.stoecker@cetecom.com C = US O = CETECOM Inc
Date: 2023.06.28 17:55:35 -07'00'

Date	Section	Name	Signature
6/28/2023	Compliance	Stoecker, Arndt (Director of Regulatory Services)	

Responsible for the Report:

Digitally signed by: Issa Ghanma
DN: CN = Issa Ghanma email = Issa.Ghanma@cetecom.com C = US O = CETECOM, Inc. OU = EMC
Date: 2023.06.28 17:34:09 -07'00'

Date	Section	Name	Signature
6/28/2023	Compliance	Ghanma, Issa (Deputy Lab Manager)	

2 Administrative Data

2.1 Identification of the Testing Laboratory Issuing the EMC Test Report

Company Name:	CETECOM Inc.
Department:	Compliance
Street Address:	411 Dixon Landing Road
City/Zip Code	Milpitas, CA 95035
Country	USA
Telephone:	+1 (408) 586 6200
Fax:	+1 (408) 586 6299
Director of Regulatory Services:	Stoecker, Arndt
Responsible Project Leader:	Baskaran, Akanksha

2.2 Identification of the Client

Applicant's Name:	Motive Technologies, Inc.
Street Address:	55 Hawthorne St., Suite 400
City/Zip Code	San Francisco, CA 94105
Country	USA

2.3 Identification of the Manufacturer

Manufacturer's Name:	Same as Client /----------
Manufacturers Address:	----------
City/Zip Code	----------
Country	----------

3 Equipment Under Test (EUT)

3.1 EUT Specifications

Brand:	Motive Technologies, Inc.	
Model No:	OC-1	
Marketing name:	Omnicam	
FCC-ID :	2AQM7-OC1	
IC:	24516-OC1	
HW Version :	1	
SW Version :	0.7.2	
HVIN:	OC-1	
PMN:	Omnicam	
FVIN:	N/A	
HMN	N/A	
Product Description:	Is a vehicle camera, designed to be powered by vehicle power (12 or 24 V DC). It is designed to be always on and recording video while the vehicle is on. It will upload small video files to Motive back-end servers via LTE on request.	
Frequency Range / number of channels:	Frequency Range (MHz)	Channel Number
	5725-5850	149-165 [5] 20 MHz 151-159 [2] 40 MHz 155 [1] 80 MHz
Modes of Operation / Channel Bandwidths:	IEEE Std. 802.11(xxxx)	Data Rate / MCS
	a	6-54 Mbps
	n: HT20 & HT40 SISO, MIMO (2X2)	MCS 0-7; MCS 8-15
	ac: VHT20; VHT40; VHT80 SISO, MIMO (2X2)	MCS 0-9
Transmit Chains(NTX)	2 Transmit chains: WLAN0 and WLAN1	
Power Supply/ Rated Operating Voltage Range:	12 or 24 V DC	
Operating Temperature Range:	T min: -40 ºC / T Nom: 20 ºC / T max: +60 ºC	
Max. Output Power:	❖ WLAN 0 U-NII-3 (Measured) 802.11a: 16.03 dBm ❖ WLAN 1 U-NII-3 (Measured) 802.11a: 16.02 dBm ❖ WLAN MIMO U-NII-3 (Calculated total power) ○ 802.11n-HT20: 18.77 dBm ○ 802.11n-HT40: 16.95 dBm ○ 802.11ac-VHT20: 18.75 dBm ○ 802.11ac-VHT40: 16.76 dBm ○ 802.11ac-VHT80: 15.74 dBm	
Sample Revision	☐ Production Unit; ☑ Pre-Production	

Antenna Information as declared:	❖ BLE/WLAN 0 ○ Type: Inverted-F Antenna ○ Max Gain: 5.0 – 6.0 GHz: 4.4 dBi ❖ BLE/WLAN 1 ○ Type: Inverted-F Antenna ○ Max Gain: 5.0 – 6.0 GHz: 5.6 dBi
Other Radios included in the device:	❖ Cellular: Sierra Wireless RC7612 ❖ BT LE/WLAN: Murata LBEE5XV1XZ
Note: The information of the EUT specifications in the table above is provided by the applicant.	

3.2 EUT Sample details

EUT #	Serial Number	HW Version	SW Version	Notes/Comments
1	ACCS11AC240211	1	0.7.2	Conducted measurement
2	ACCS1BC332451	1	0.7.2	Radiated measurement

3.3 Accessory Equipment (AE) details

AE #	Type	Model	Manufacturer	S/N	Notes/Comments
N/A	-	-	-	-	-

3.4 Test Sample Configuration

EUT Set-up #	Combination of AE used for test setup	Comments
1	EUT # 1	The measurement equipment was connected to the 50-ohm RF port of the EUT.
2	EUT # 2	The internal antenna was connected.

3.5 Mode of Operation details

Mode of Operation	Description of Operating modes	Additional Information
Op. 1	WLAN 5 GHz UNII-3	❖ An Ethernet to USB adaptor provided by the client used to communicate with the device and send commands, that will not be available to the end-user to configure the Wi-Fi radio to: ▪ Maximum output power setting*1 ▪ Maximum duty cycle ▪ Modulated signal ▪ Switch between TX chains: 0, 1, or 0 and 1 ▪ Switch between supported modes: a, n-HT20/40, ac-VHT20/40/80 (SISO, MIMO) ▪ Select data rates ○ 802.11a → 6Mbps ○ 802.11n-HT20/40→ MCS0 ○ 802.11ac-VHT20/40/80 → MCS0 ▪ Select TX channel(s) ○ 20 MHz: • Low CH149 → 5745 MHz • Mid CH157→ 5785 MHz • High CH165→ 5825 MHz ○ 40 MHz: • Low CH151 → 5755 MHz • High CH159→ 5795 MHz ○ 80 MHz: CH155 → 5775 MHz
Op. 2	WLAN 5 GHz UNII-3	❖ An Ethernet to USB adaptor provided by the client used to communicate with the device and send commands, that will not be available to the end-user to configure the Wi-Fi radio to: ▪ Maximum output power setting*1 ▪ Maximum duty cycle ▪ Modulated signal ▪ Switch between supported modes: n-HT20 MIMO ▪ Select data rates ○ 802.11n MIMO→ MCS8 ▪ Select TX channel(s) ○ Low CH149 → 5745 MHz ○ Mid CH157→ 5785 MHz ○ High CH165→ 5825 MHz
Op.3	WLAN 5 GHz UNII-3	❖ An Ethernet to USB adaptor provided by the client used to communicate with the device and send commands, that will not be available to the end-user to configure the Wi-Fi radio to: ▪ Maximum output power setting*1 ▪ Unmodulated signal (CW) ▪ Select TX channel:CH149 → 5745 MHz

*1: Refer to the EUT Operational Description: '*Omnicam OC-1 Product Description.pdf*' for full power settings table

3.6 Justification for Worst Case Mode of Operation

During the testing process, the EUT was tested with transmitter sets on low, mid and high channels, and highest possible duty cycle and output power.

For conducted measurements;

- All data in this report show the worst case of Wi-Fi radio transmitting at the highest output power representing the worst case transmission mode.

For radiated measurements;

- All data in this report show the worst case of Wi-Fi radio transmitting at the highest output power representing the worst case of BLE transmission mode.
- All data in this report show the worst case between horizontal and vertical antenna polarizations and for all orientations of the EUT.

4 Subject of Investigation

The objective of the measurements done by CETECOM Inc. was to assess the performance of the EUT according to the relevant requirements specified in FCC rules Part 15.407 of Title 47 of the Code of Federal Regulations and Radio Standard Specification RSS-247 of ISED Canada.

This test report is to support a request for new equipment authorization under:

- FCC ID: 2AQM7-OC1
- IC ID: 24516-OC1

4.1 Test methodology of applied standards

- FCC part 15, Subpart C §15.407
- FCC KDB 789033 D02 1 General UNII Test Procedures New Rules v02r01
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01
- RSS-247 issue 2 Feb. 2017
- RSS-Gen issue 5 April 2018
- ANSI C63.10:2013

5 Measurement Results Summary

Test Specification	Test Case	Temperature and Voltage Conditions	Mode	Pass	NA	NP	Result
§15.407(e) RSS-247 6.2.4.1	Emission Bandwidth	Nominal	Op.1	☑	☐	☐	Complies
§15.407(a) RSS-247 6	Power Spectral Density	Nominal	Op.1	☑	☐	☐	Complies
§15.407(a) RSS-247 6	Maximum Output Power	Nominal	Op.1	☑	☐	☐	Complies
§15.407; 15.205 RSS-247 6; RSS-Gen 8.10	Band Edge Compliance	Nominal	Op.1	☑	☐	☐	Complies
§15.407(b); §15.209; 15.205 RSS-247 6; RSS-Gen 8.9; 8.10	Radiated TX Spurious Emissions	Nominal	Op.2	☑	☐	☐	Complies
§15.407(g);	Frequency stability	Extreme	Op.3	☑	☐	☐	Complies
§15.207(a) RSS Gen 8.8	AC Conducted Emissions	Nominal	-	☐	☐	☑	Note 1 Note 2

Note 1: NA= Not Applicable; NP= Not Performed.
Note 2: The EUT is a vehicular device powered by DC mains (battery); hence this test is not applicable.

6 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus, with a 95% confidence interval (in dB delta to result), based on a coverage factor k=2.

Measurement System		EMC 1	EMC 2
Conducted emissions (mains port)		1.12 dB	0.46 dB
Radiated emissions	(< 30 MHz)	3.66 dB	3.88 dB
	(30 MHz – 1GHz)	3.17 dB	3.34 dB
	(1 GHz – 3 GHz)	5.01 dB	4.45 dB
	(>3 GHz)	4.0 dB	4.79 dB

RF conducted measurement ±0.5 dB

According to TR 102 273 a multiplicative propagation of error is assumed for RF measurement systems. For this reason the RMS method is applied to dB values and not to linear values as appropriate for additive propagation of error. Also used: http://physics.nist.gov/cuu/Uncertainty/typeb.html. The above calculated uncertainties apply to direct application of the Substitution method. The Substitution method is always used when the EUT comes closer than 3 dB to the limit.

6.1 Environmental Conditions During Testing:

The following environmental conditions were maintained during the course of testing:

- Ambient Temperature: 20-25° C
- Relative humidity: 40-60%

6.2 Dates of Testing:

5/5/2023 – 6/26/2023

6.3 Decision Rule:

Cetecom advanced follows ILAC G8:2019 chapter 4.2.1 (Simple Acceptance Rule).

Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed in chapter 3. The measurement uncertainty is mentioned in this test report, See chapter 9, but is not taken into account – neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong.

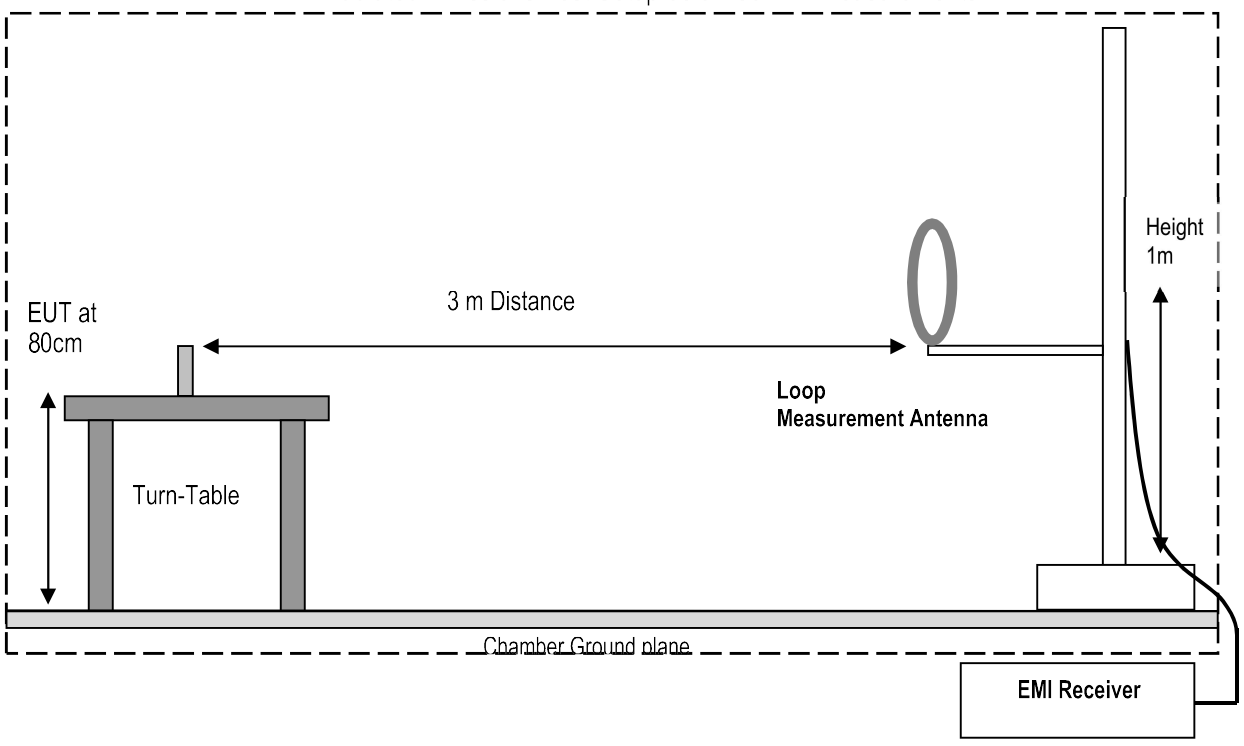
7 Measurement Procedures

7.1 Radiated Measurement

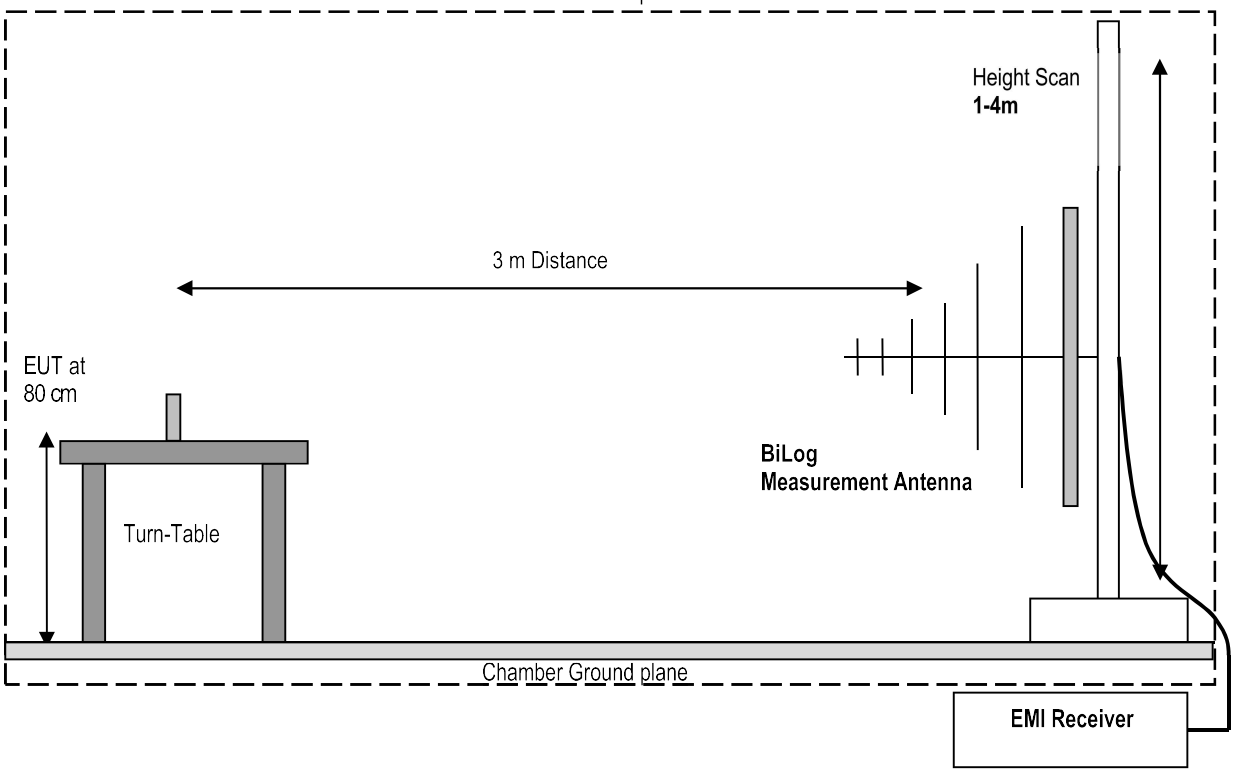
The radiated measurement is performed according to ANSI C63.10 (2013)

- The exploratory measurement is accomplished by running a matrix of 16 sweeps over the required frequency range with R&S Test-SW EMC32 for 4 positions of the turntable, two orthogonal positions of the EUT, and both antenna polarizations. This procedure exceeds the requirement of the above standards to cover the 3 orthogonal axes of the EUT. A max peak detector is utilized during the exploratory measurement. The Test-SW creates an overall maximum trace for all 12 sweeps and saves the settings for each point of this trace. The maximum trace is part of the test report.
- The 10 highest emissions are selected with an automatic algorithm of EMC32 searching for peaks in the noise floor and ensuring that broadband signals are not selected multiple times.
- The maxima are then put through the final measurement and again maximized in a 90deg range of the turntable, fine search in the frequency domain and height scan between 1m and 4m.
- The above procedure is repeated for all possible ways of power supply to EUT and all supported modulations.
- In case there are no emissions above the noise floor level only the maximum trace is reported as described above.
- The results are split up into up to 4 frequency ranges due to antenna bandwidth restrictions. A magnetic loop is used from 9 kHz to 30 MHz, a Biconilog antenna is used from 30 MHz to 1 GHz, and two different horn antennas are used to cover frequencies up to 40 GHz.

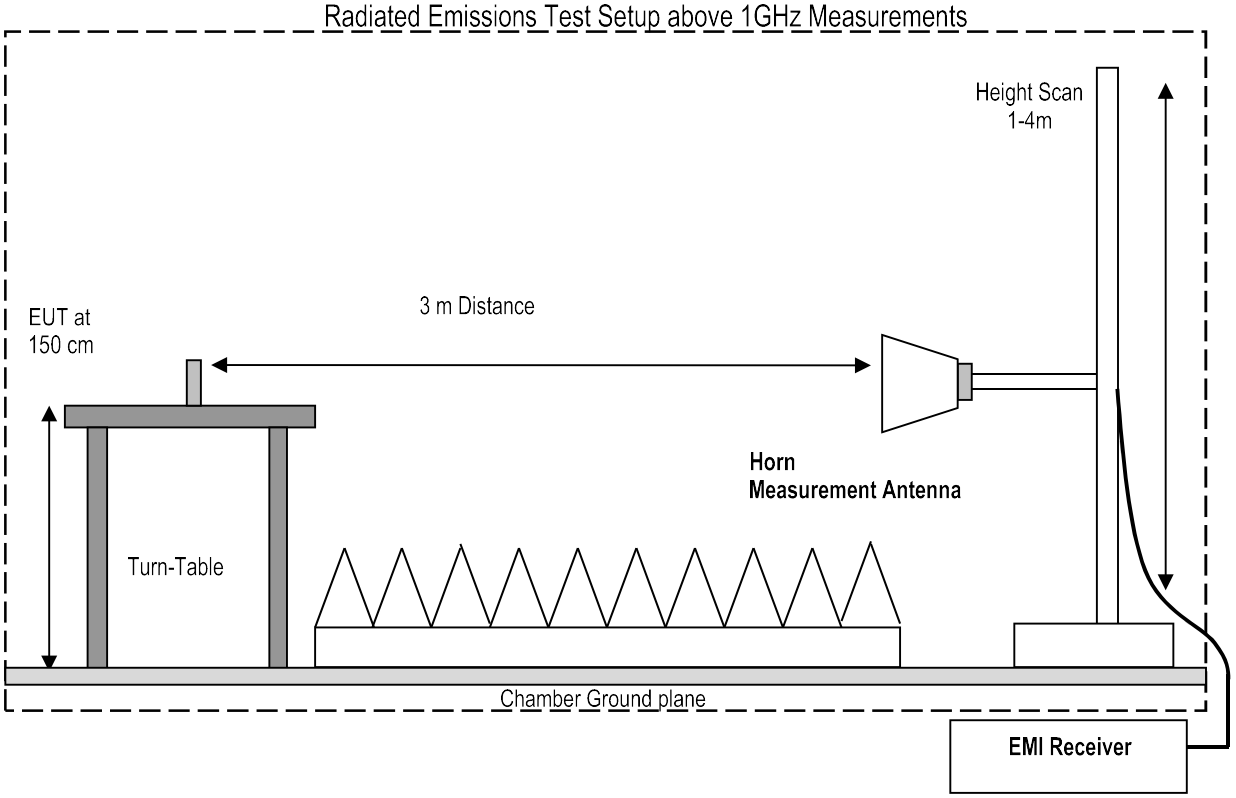
Radiated Emissions Test Setup below 30MHz Measurements



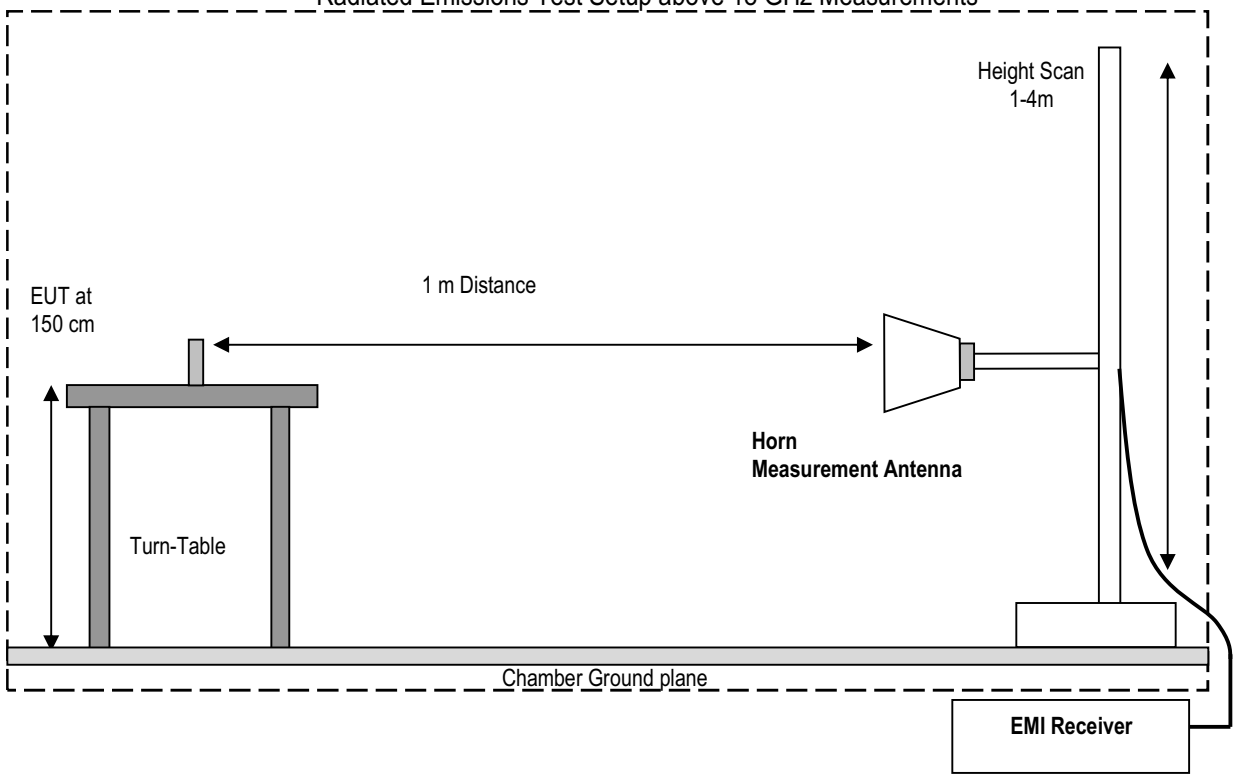
Radiated Emissions Test Setup 30MHz-1GHz Measurements



Radiated Emissions Test Setup above 1GHz Measurements



Radiated Emissions Test Setup above 18 GHz Measurements



7.1.1 Sample Calculations for Field Strength Measurements

Field Strength is calculated from the Spectrum Analyzer/ Receiver readings, taking into account the following parameters:

1. Measured reading in dBµV
2. Cable Loss between the receiving antenna and SA in dB and
3. Antenna Factor in dB/m

All radiated measurement plots in this report are taken from a test SW that calculates the Field Strength based on the following equation:

FS (dBµV/m) = Measured Value on SA (dBµV) + Cable Loss (dB) + Antenna Factor (dB/m)

Example:

Frequency (MHz)	Measured SA (dBµV)	Cable Loss (dB)	Antenna Factor Correction (dB)	Field Strength Result (dBµV/m)
1000	80.5	3.5	14	98.0

7.2 RF Conducted Measurement Procedure

Testing procedures are based on 558074 D01 15.247 Meas Guidance v05r02 – "GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES" - April 2, 2019, by the Federal Communications Commission, Office of Engineering and Technology, Laboratory Division.

- Connect the equipment as shown in the above diagram.
- Adjust the settings of the SA (Rohde-Schwarz Spectrum Analyzer) to connect the EUT at the required mode of test.
- Measurements are to be performed with the EUT set to the low, middle, and high channels and for worst-case modulation schemes.

8 Test Result Data

8.1 Duty cycle

8.1.1 Measurement according to ANSI C63.10 clause 12.2

DUTY CYCLE, TRANSMISSION DURATION AND MAXIMU POWER CONROL LEVEL

Measurements of duty cycle and transmission duration shall be performed using one of the following technique:

2) The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on-and off-times of transmitted signal.

a) Set the center frequency of the instrument to the center frequency of the transmission.
b) Set RBW ≥ EBW if possible; otherwise, set RBW to the largest available value.
c) Set VBW ≥ RBW.
d) Set detector = peak
e) The zero-span measurement method shall not be used unless both RBW and VBW are >50/T, where T is defined in item a1) of 12.2, and the number of sweep points across duration T exceeds 100.

8.1.2 Test conditions and setup:

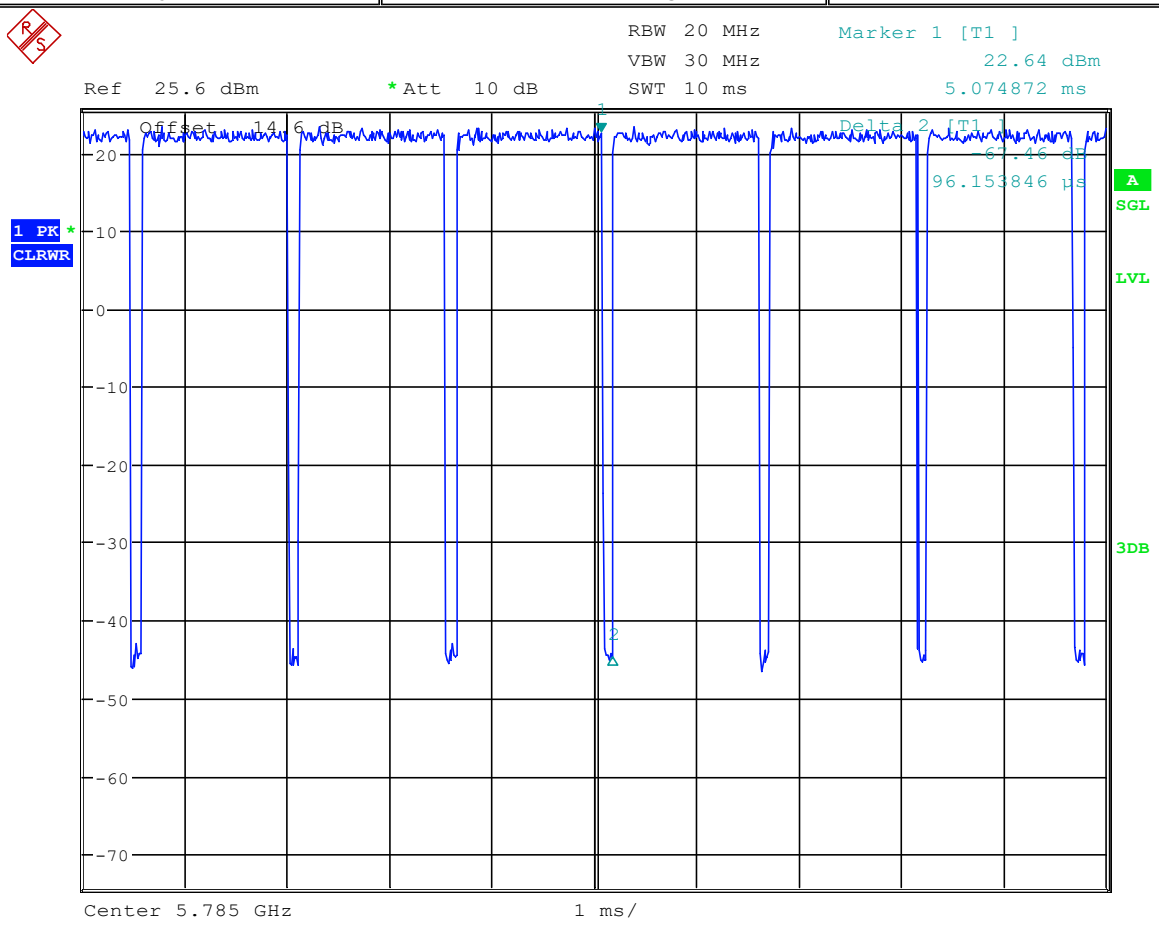
Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input
23.8°C	1	Op.1	12V DC

8.1.3 Measurement result:

Plot #	Mode	TX Frequency	Data Rate	Duty cycle
1	802.11a	5785 MHz	6 Mb/s	93.51%
2	802.11n_HT20	5785 MHz	MCS0	93.51%
3	802.11ac_VHT20	5785 MHz	MCS0	93.71%
4	802.11n_HT40	5755 MHz	MCS0	87.71%
5	802.11ac_VHT40	5755 MHz	MCS0	88.11%
6	802.11ac_VHT80	5775 MHz	MCS0	79.02%

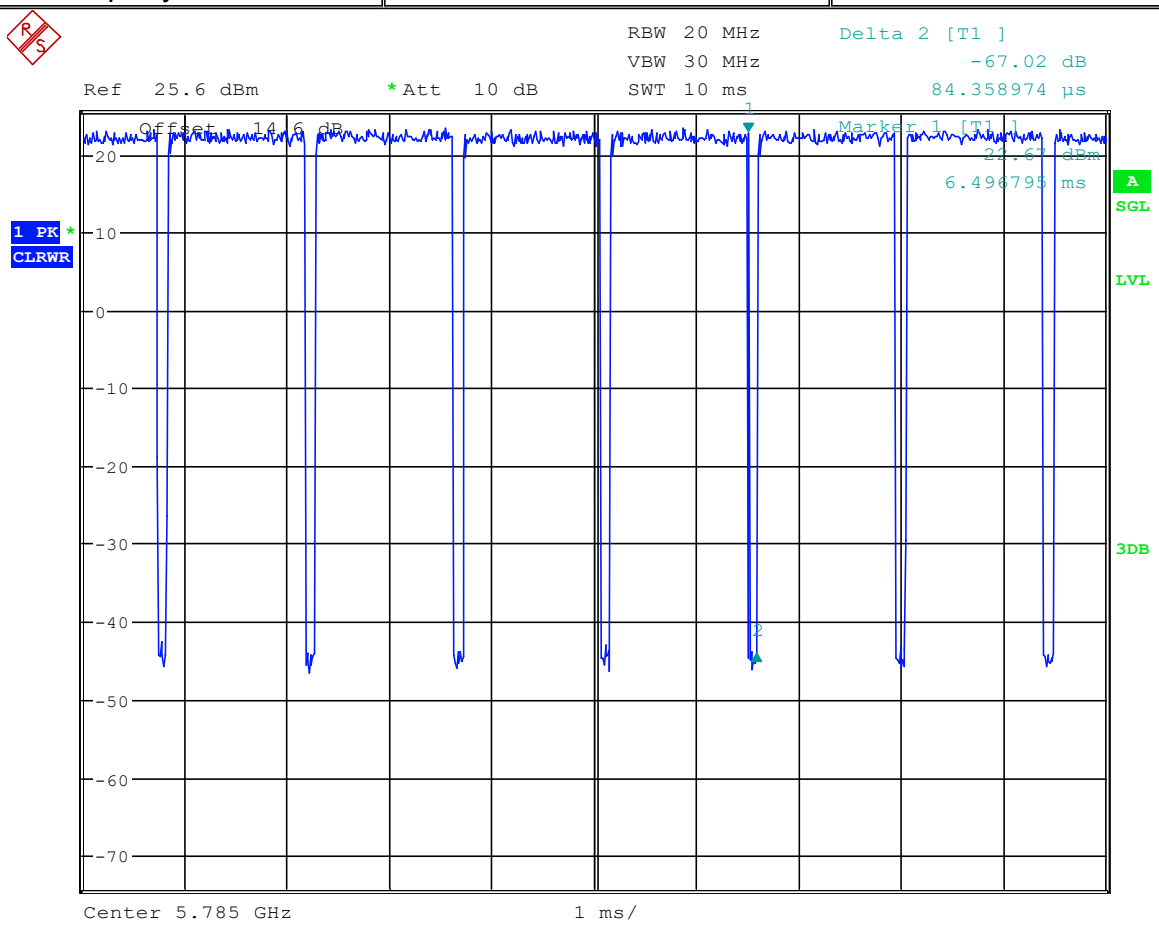
8.1.4 Measurement plots

Plot # 1		
Tx Frequency: 5785 MHz	**Mode: 802.11 g**	**Data rate: 6 Mb/s**



Plot # 2

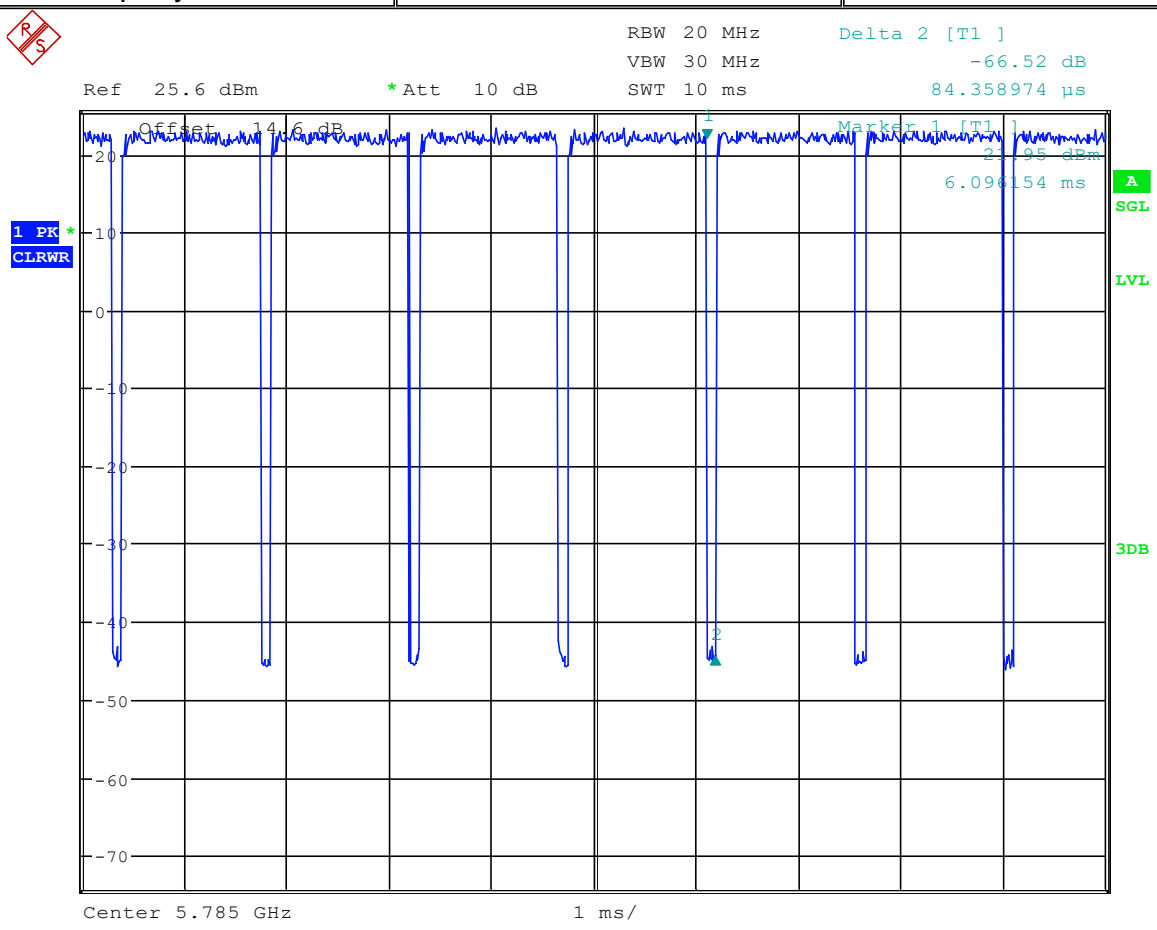
Tx Frequency: 5785 MHz	Mode: 802.11 n-HT20	MCS0



Date: 5.MAY.2023 08:39:54

Plot # 3

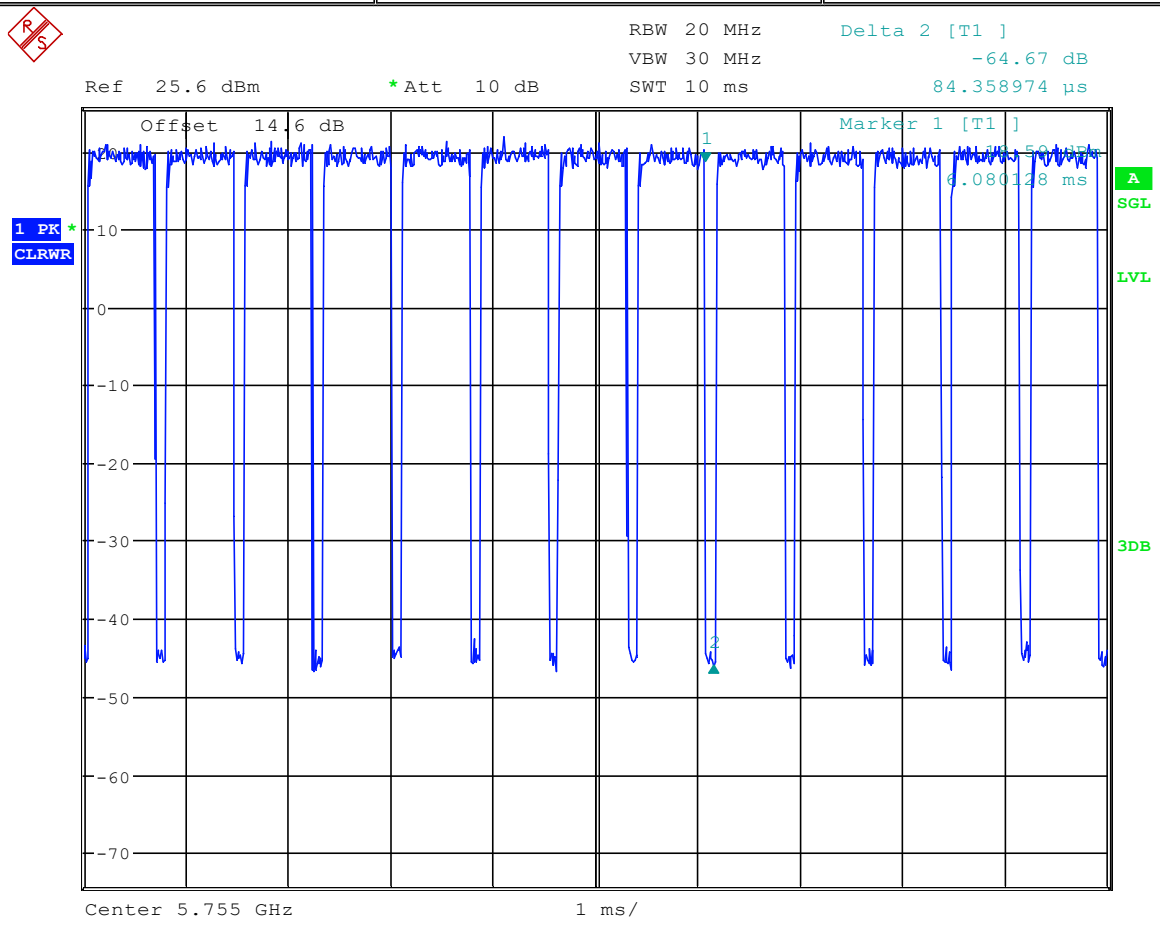
Tx Frequency: 5785 MHz	Mode: 802.11 ac-VHT20	MCS0



Date: 5.MAY.2023 08:41:28

Plot # 4

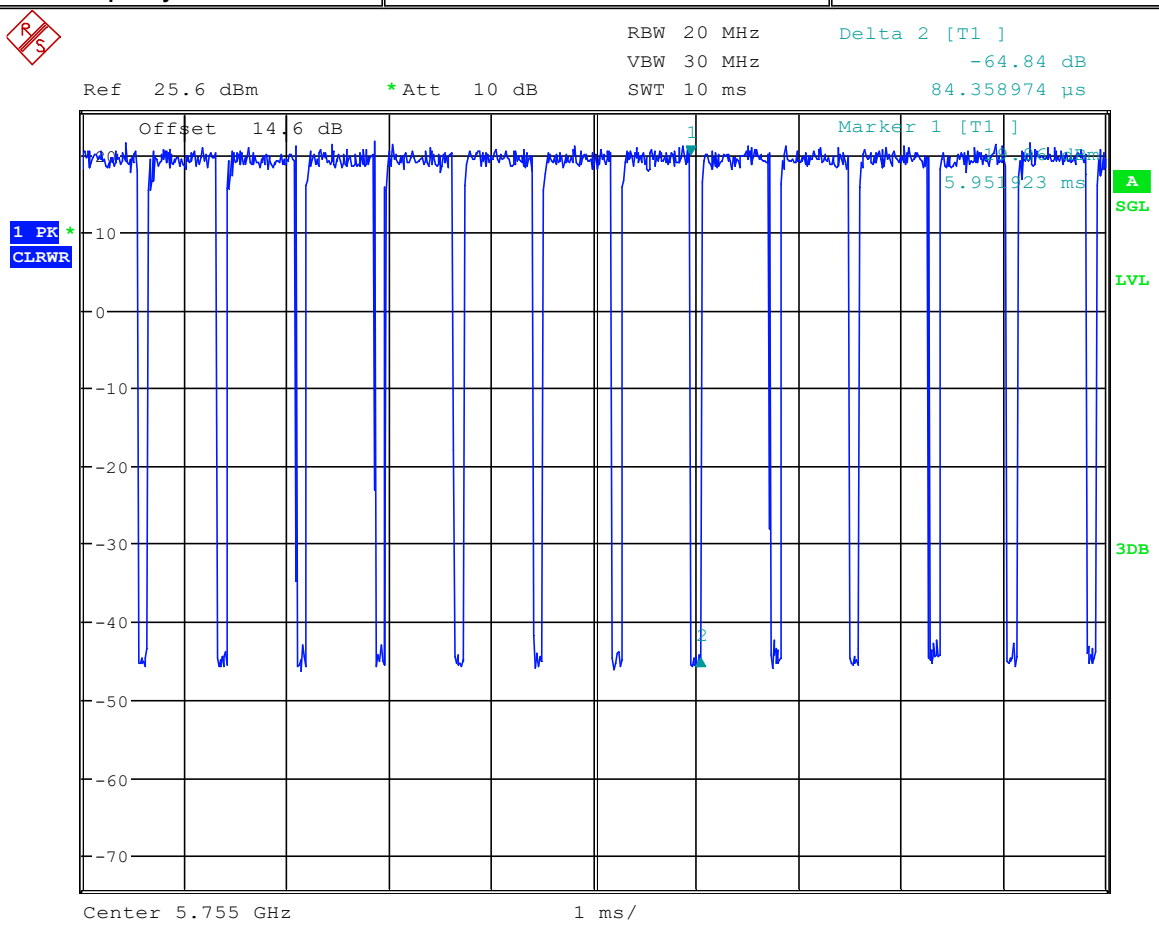
Tx Frequency: 5755 MHz	Mode: 802.11 n-HT40	MCS0



Date: 5.MAY.2023 10:27:53

Plot # 5

Tx Frequency: 5755 MHz	Mode: 802.11 ac-VHT40	MCS0



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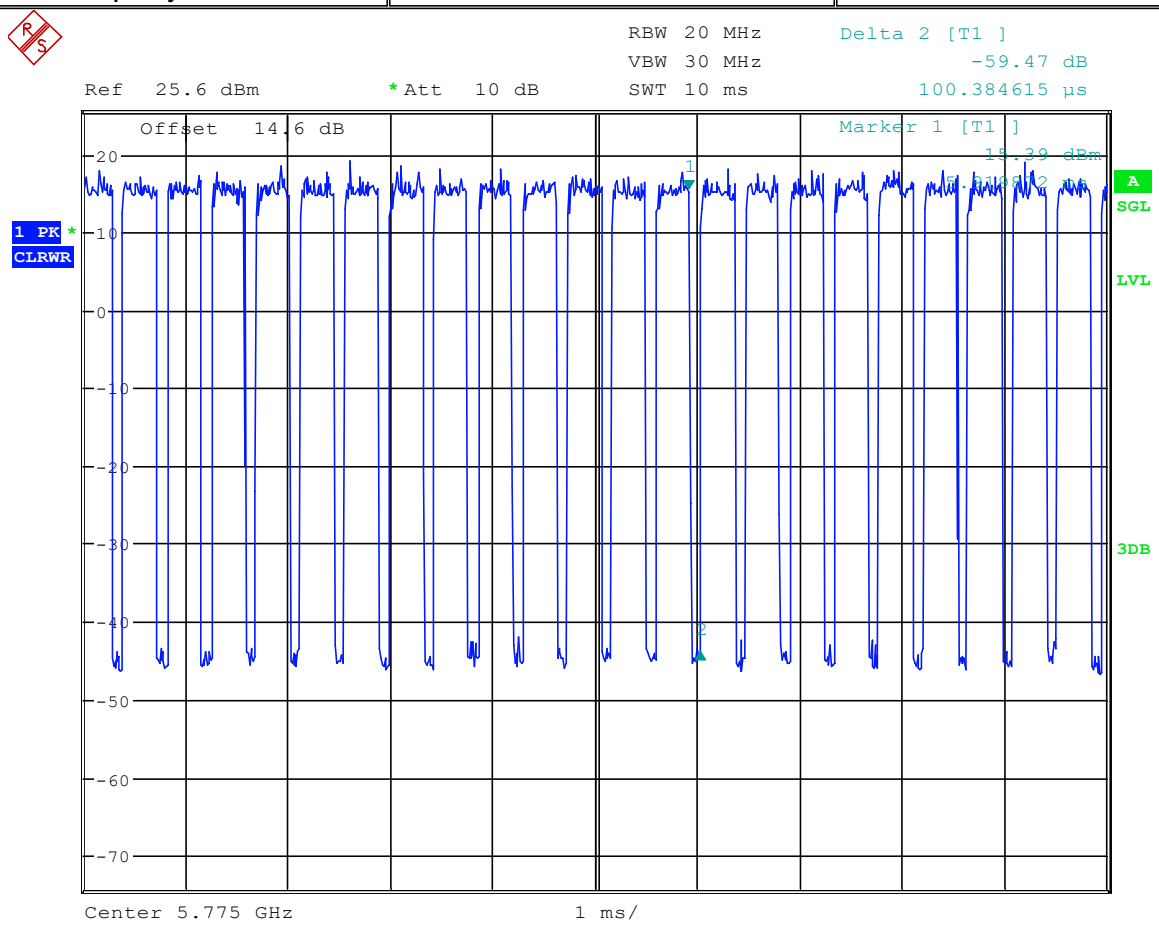
Plot # 6

Tx Frequency: 5775 MHz	Mode: 802.11 ac-VHT80	MCS0



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8.2 Maximum Output Power

8.2.1 Measurement according to ANSI C63.10 clause 12.3

Maximum conducted output power measurement using a spectrum analyzer or EMI receiver clause 12.3.2.4 Method SA-2

a) Measure the duty cycle D of the transmitter output signal as described in 12.2
b) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal.
c) Set RBW = 1 MHz
d) Set the VBW ≥ 3 MHz
e) Number of points in sweep ≥ [2 x Span / RBW]. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
f) Sweep time = Auto Couple
g) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
h) Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed such that the average accurately represents the true average over the ON and OFF periods of the transmitter.
i) Compute power by integrating the spectrum across the 26dB EBW or 99% OBW of the signal using the instrument's band power measurement function with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26dB EBW 99% OBW of the spectrum.
j) Add [10 log (1/D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents and average over both the ON and OFF times of the transmission).

8.2.2 Limits:

- FCC§15.407 (a)(3)(i) For the band 5.725 – 5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1W.

- RSS-247 clause 6.2.4.1 Frequency band 5725-5850 MHz; The maximum conducted output power shall not exceed 1 W.

8.2.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
23.8°C	1	Op.1	12V DC	Ant 0: 4.4 dBi Ant 1: 5.6 dBi

8.2.4 Measurement result:

TX chain 0

Plot #	Mode	Data rate	Frequency (MHz)	Conducted output power (dBm)	Output power Corrected for duty cycle (dBm)	Limit (dBm)	Result
7	802.11 a	6 Mb/s	5745	15.630	15.92	30	Pass
8			5785	15.790	16.08	30	Pass
9			5825	14.250	14.54	30	Pass
10	802.11 n-HT20	MCS0	5745	15.490	15.78	30	Pass
11			5785	15.770	16.06	30	Pass
12			5825	14.140	14.43	30	Pass
13	802.11 ac-VHT20	MCS0	5745	15.460	15.74	30	Pass
14			5785	15.720	16.00	30	Pass
15			5825	14.170	14.45	30	Pass
16	802.11 n-HT40	MCS0	5755	13.38	13.95	30	Pass
17			5795	13.24	13.81	30	Pass
18	802.11 ac-VHT40	MCS0	5755	13.28	13.83	30	Pass
19			5795	13.26	13.81	30	Pass
20	802.11 ac-VHT80	MCS0	5775	11.98	13.0	30	Pass

TX chain 1

Plot #	Mode	Data rate	Frequency (MHz)	Conducted output power (dBm)	Output power Corrected for duty cycle (dBm)	Limit (dBm)	Result
21	802.11 a	6 Mb/s	5745	15.73	16.02	30	Pass
22			5785	15.0	15.29	30	Pass
23			5825	13.57	13.86	30	Pass
24	802.11 n-HT20	MCS0	5745	15.45	15.74	30	Pass
25			5785	14.80	15.09	30	Pass
26			5825	13.62	13.91	30	Pass
27	802.11 ac-VHT20	MCS0	5745	15.45	15.73	30	Pass
28			5785	14.72	15.00	30	Pass
29			5825	13.57	13.85	30	Pass
30	802.11 n-HT40	MCS0	5755	13.35	13.92	30	Pass
31			5795	12.27	12.84	30	Pass
32	802.11 ac-VHT40	MCS0	5755	13.11	13.66	30	Pass
33			5795	12.15	12.70	30	Pass
34	802.11 ac-VHT80	MCS0	5775	11.42	12.443	30	Pass

TX chain 0 & 1

According KDB 662911 D01 Multiple Transmitter output v02r01

- E) 1) In-Band Power Measurements: The measure-and-sum technique shall be used for measuring in-band transmit power of a device. Total power is the sum of the conducted power level measured at the various output ports.

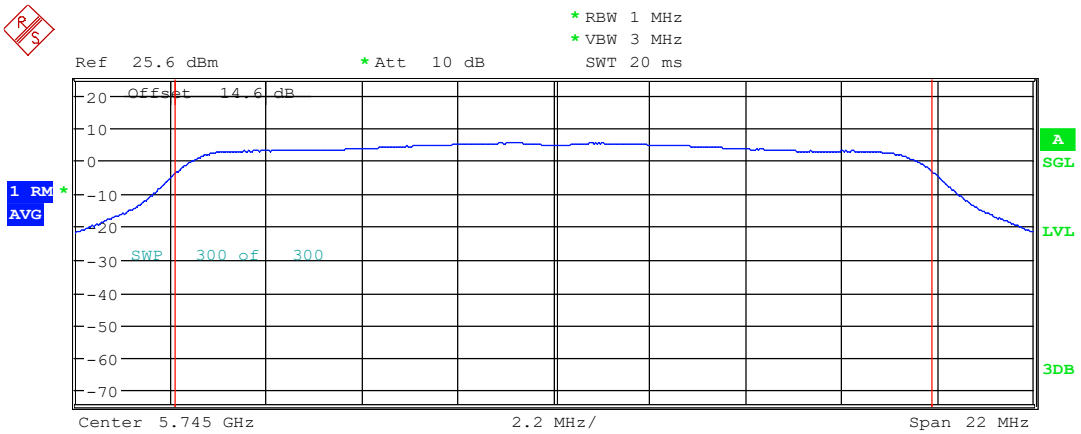
Mode	Data rate	Frequency (MHz)	Output power Corrected for duty cycle (dBm)		Total power*1 (dBm)	Limit (dBm)	Result
			Chain 0	Chain 1			
802.11 n-HT20	MCS0	5745	15.78	15.74	**18.77**	30	Pass
		5785	16.06	15.09	18.61	30	Pass
		5825	14.43	13.91	17.19	30	Pass
802.11 ac-VHT20	MCS0	5745	15.74	15.73	18.75	30	Pass
		5785	16.00	15.00	18.54	30	Pass
		5825	14.45	13.85	17.17	30	Pass
802.11 n-HT40	MCS0	5755	13.95	13.92	16.94	30	Pass
		5795	13.81	12.84	16.36	30	Pass
802.11 ac-VHT40	MCS0	5755	13.83	13.66	16.76	30	Pass
		5795	13.81	12.70	16.30	30	Pass
802.11 ac-VHT80	MCS0	5775	13.0	12.44	15.75	30	Pass

*1: Total power = $10*\mathrm{Log}_{10}(10^{p\ chain0(dBm)/10}+10^{p\ chain1(dBm)/10})$

8.2.5 Measurement Plots:

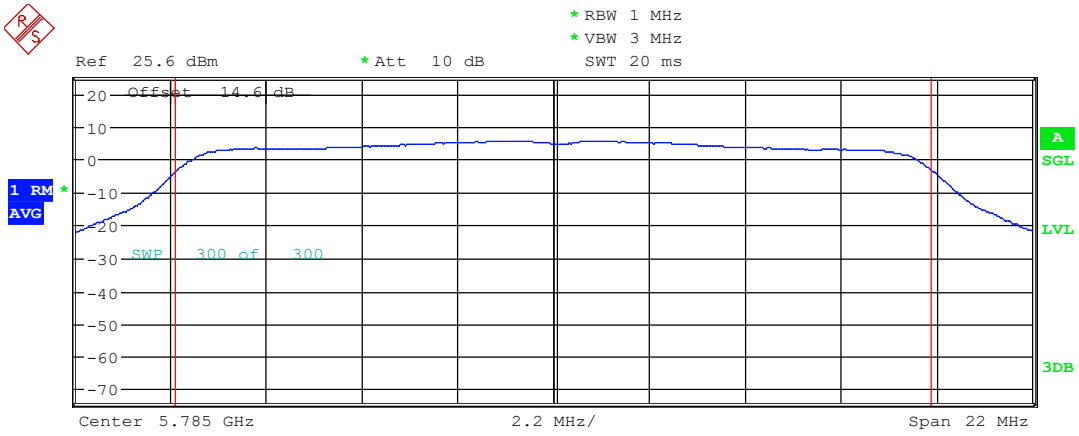
TX chain 0

Plot # 7			
Tx Frequency: 5745 MHz	**Mode: 802.11 a**	**Data rate: 6 Mb/s**	**TX chain: 0**



Plot # 8

Tx Frequency: 5785 MHz	Mode: 802.11 a	Data rate: 6 Mb/s	TX chain: 0



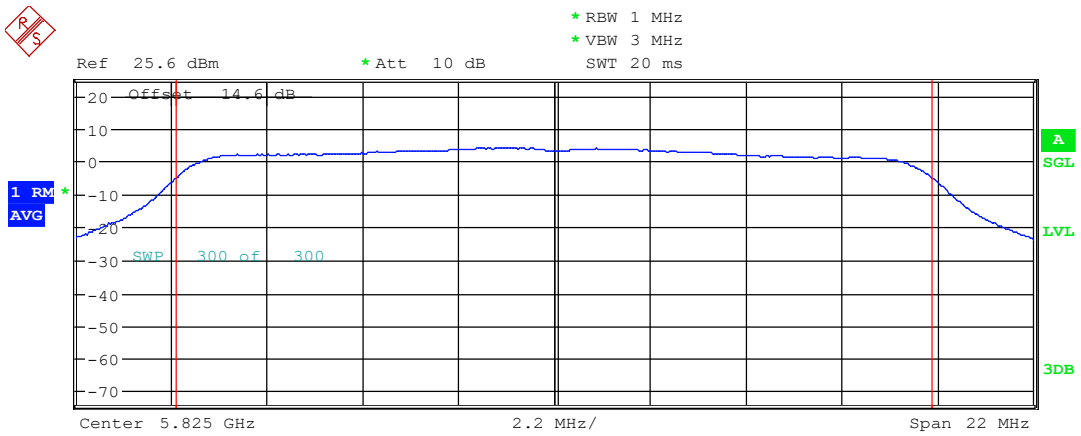
Tx Channel

Bandwidth 17.3 MHz Power 15.79 dBm

Date: 5.MAY.2023 15:25:55

Plot # 9

Tx Frequency: 5825 MHz	Mode: 802.11 a	Data rate: 6 Mb/s	TX chain: 0



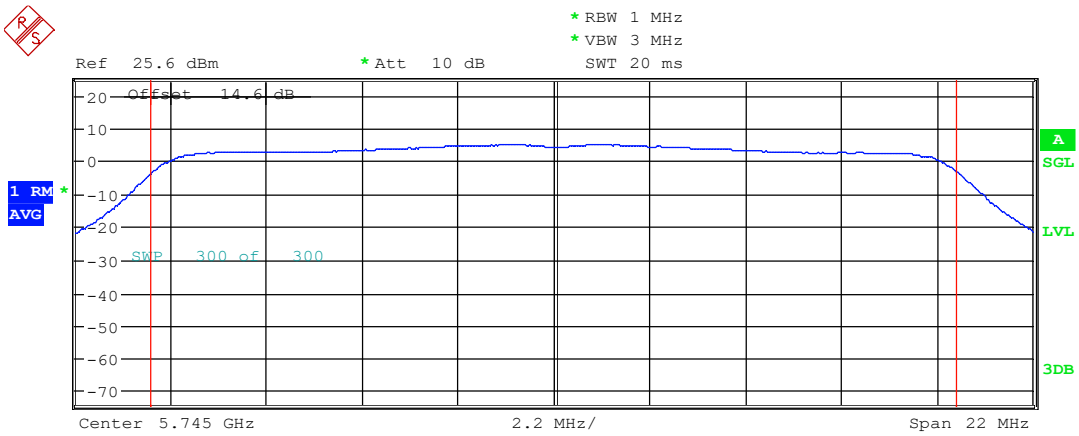
Tx Channel

Bandwidth	17.3 MHz	Power	14.25 dBm

Date: 5.MAY.2023 15:27:29

Plot # 10

Tx Frequency: 5745 MHz	Mode: 802.11 n-HT20	Data rate: MCS0	TX chain: 0



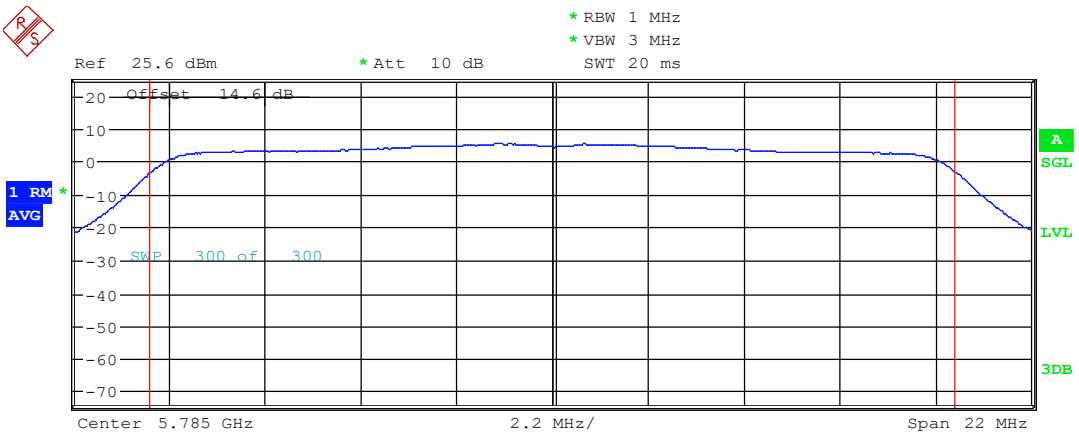
Tx Channel

Bandwidth 18.5 MHz Power 15.49 dBm

Date: 5.MAY.2023 16:07:30

Plot # 11

Tx Frequency: 5785 MHz	Mode: 802.11 n-HT20	Data rate: MCS0	TX chain: 0



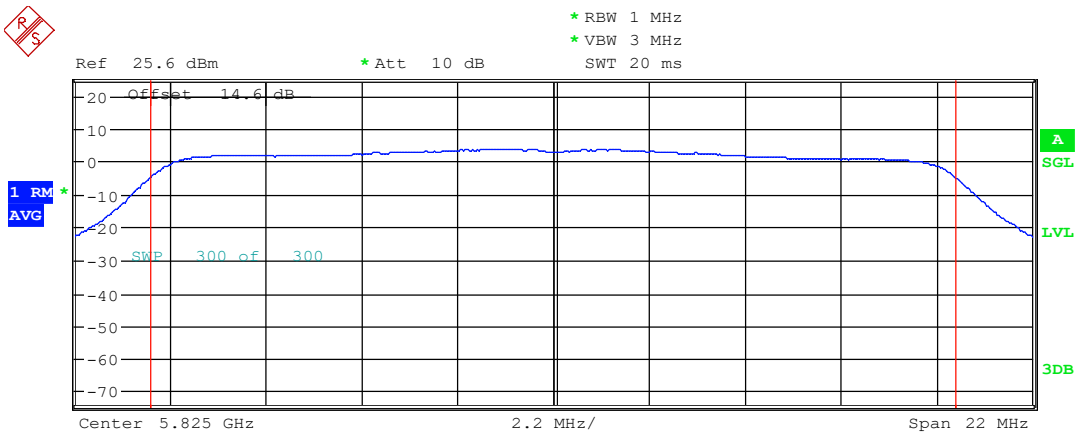
Tx Channel

Bandwidth	18.5 MHz	Power	15.77 dBm

Date: 5.MAY.2023 16:08:47

Plot # 12

Tx Frequency: 5825 MHz	Mode: 802.11 n-HT20	Data rate: MCS0	TX chain: 0



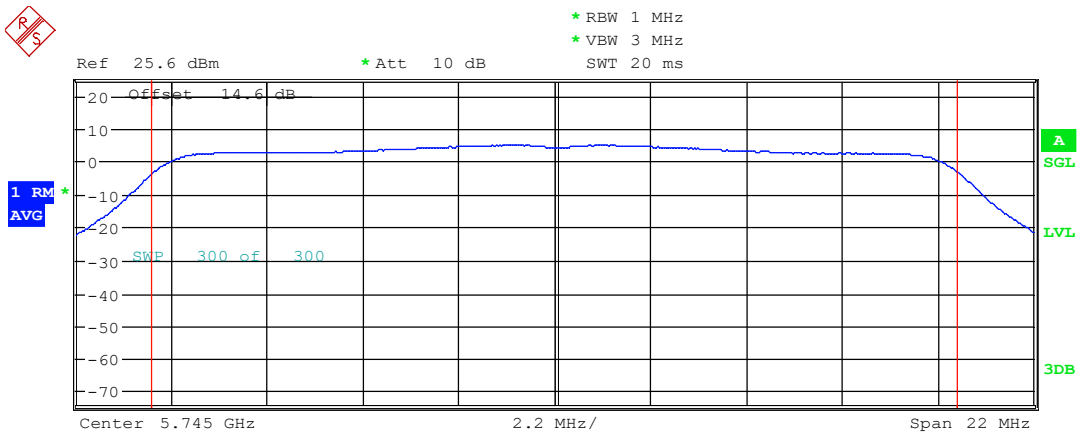
Tx Channel

Bandwidth	18.5 MHz	Power	14.14 dBm

Date: 5.MAY.2023 15:44:47

Plot # 13

Tx Frequency: 5745 MHz	Mode: 802.11 ac-VHT20	Data rate: MCS0	TX chain: 0



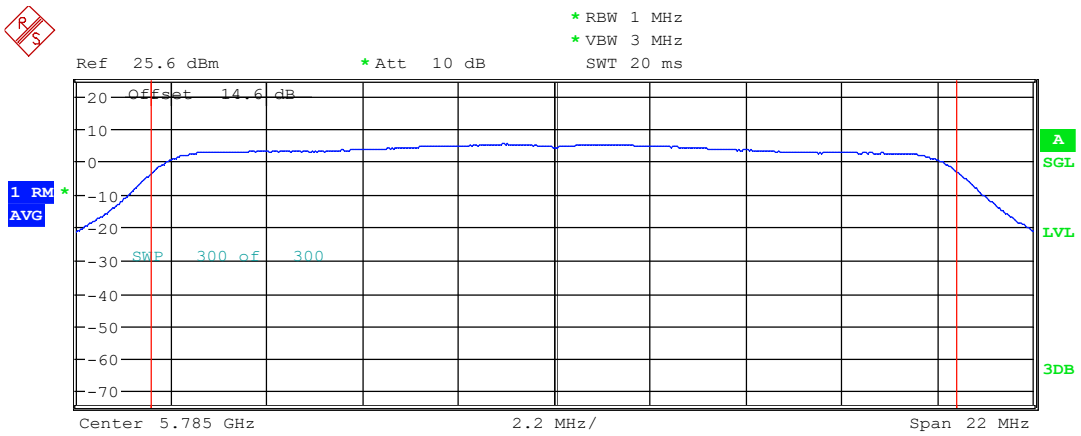
Tx Channel

Bandwidth	18.5 MHz	Power	15.46 dBm

Date: 5.MAY.2023 16:02:17

Plot # 14

Tx Frequency: 5785 MHz	Mode: 802.11 ac-VHT20	Data rate: MCS0	TX chain: 0



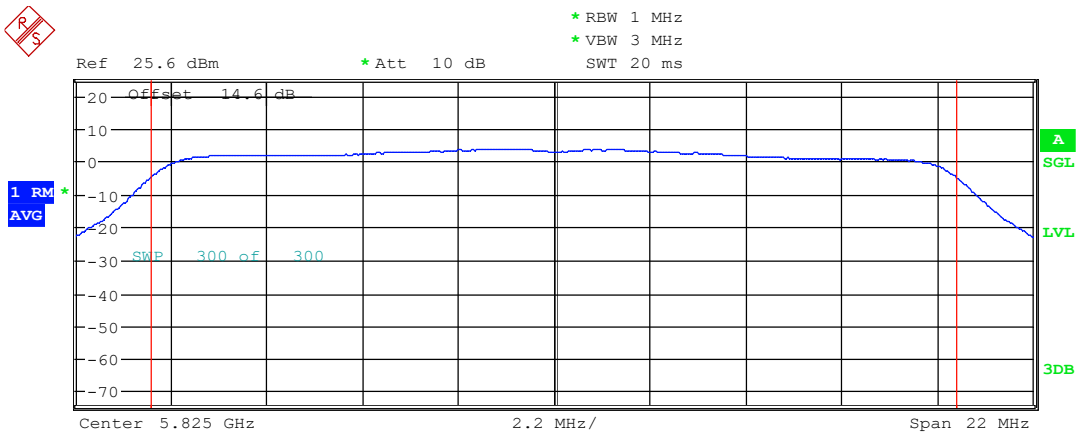
Tx Channel

Bandwidth	18.5 MHz	Power	15.72 dBm

Date: 5.MAY.2023 15:59:28

Plot # 15

Tx Frequency: 5825 MHz	Mode: 802.11 ac-VHT20	Data rate: MCS0	TX chain: 0



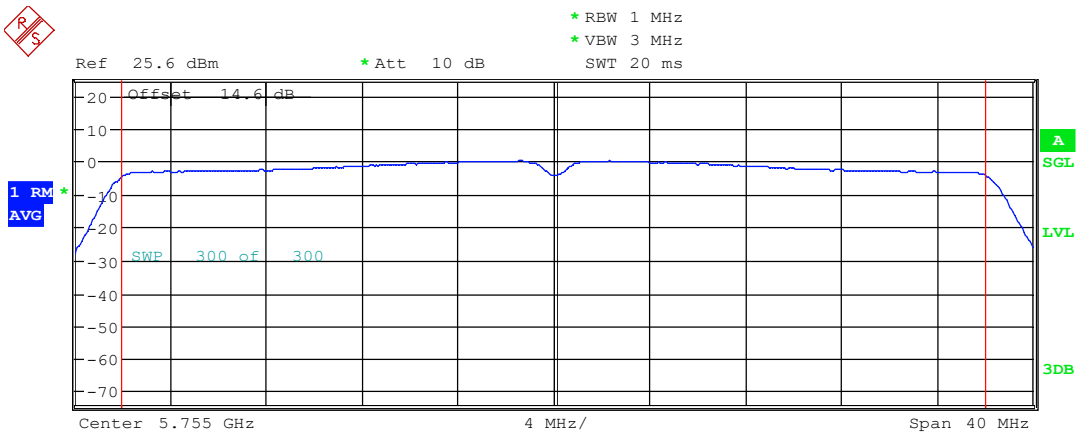
Tx Channel

Bandwidth	18.5 MHz	Power	14.17 dBm

Date: 5.MAY.2023 15:47:00

Plot # 16

Tx Frequency: 5755 MHz	Mode: 802.11 n-HT40	Data rate: MCS0	TX chain: 0



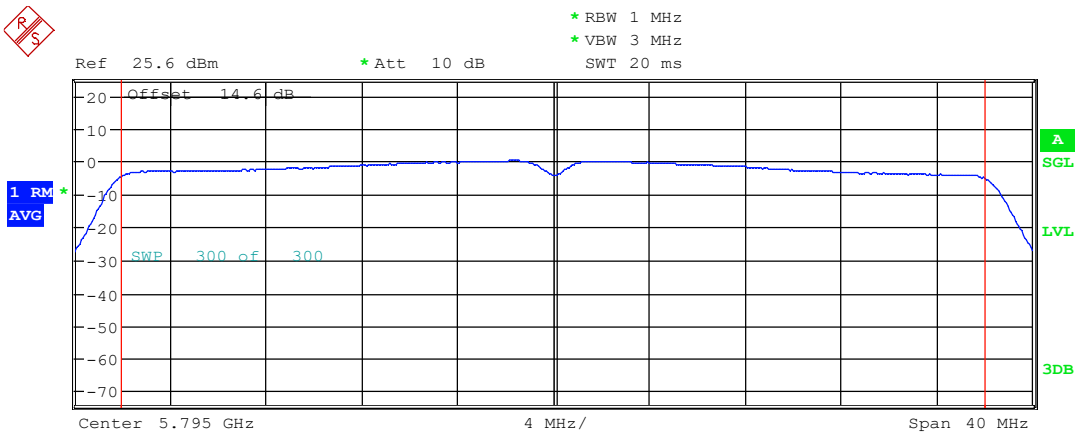
Tx Channel

Bandwidth 36 MHz Power 13.38 dBm

Date: 5.MAY.2023 16:16:25

Plot # 17

Tx Frequency: 5795 MHz	Mode: 802.11 n-HT40	Data rate: MCS0	TX chain: 0



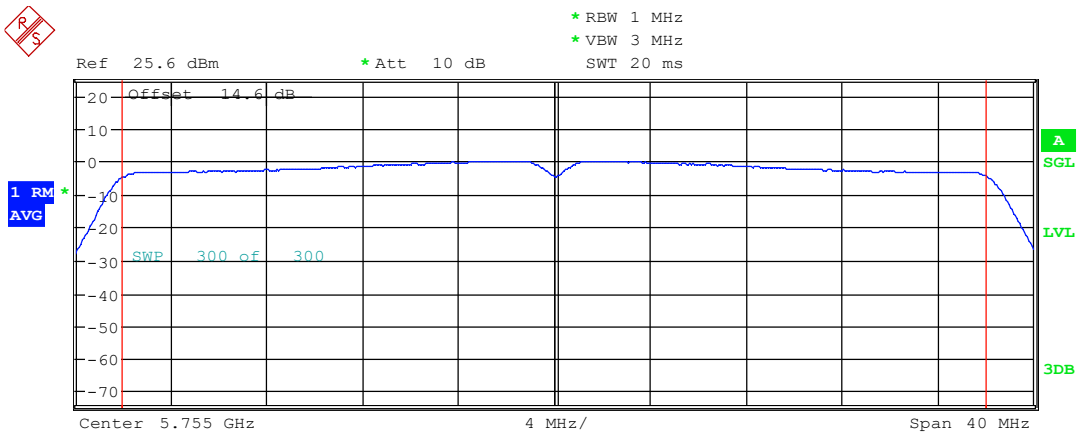
Tx Channel

Bandwidth 36 MHz Power 13.24 dBm

Date: 5.MAY.2023 16:23:41

Plot # 18

Tx Frequency: 5755 MHz	Mode: 802.11 ac-VHT40	Data rate: MCS0	TX chain: 0

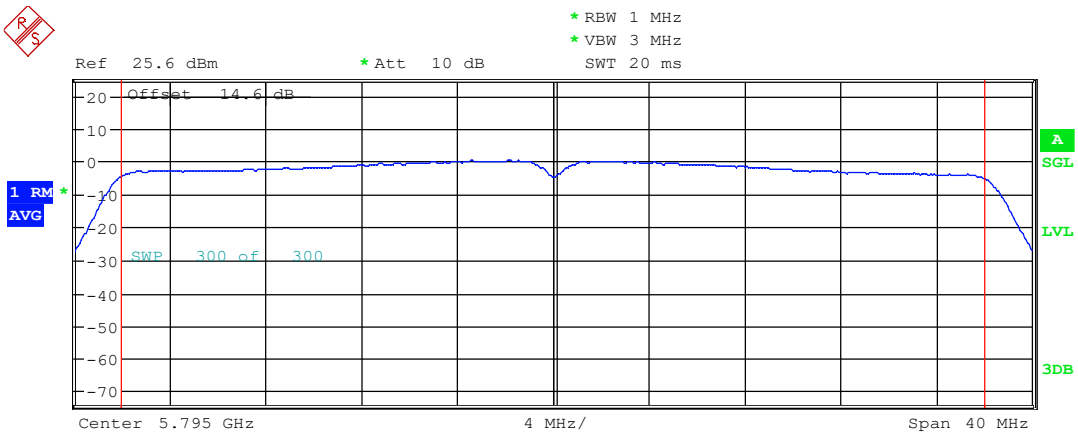


Tx Channel
Bandwidth 36 MHz Power 13.28 dBm

Date: 5.MAY.2023 16:30:50

Plot # 19

Tx Frequency: 5795 MHz	Mode: 802.11 ac-VHT40	Data rate: MCS0	TX chain: 0

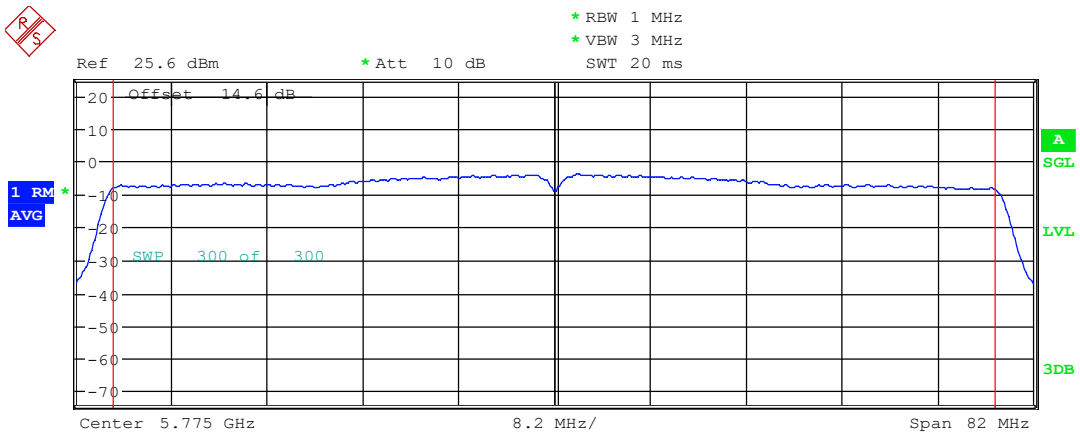


Tx Channel
Bandwidth 36 MHz Power 13.26 dBm

Date: 5.MAY.2023 16:25:09

Plot # 20

Tx Frequency: 5755 MHz	Mode: 802.11 ac-VHT80	Data rate: MCS0	TX chain: 0



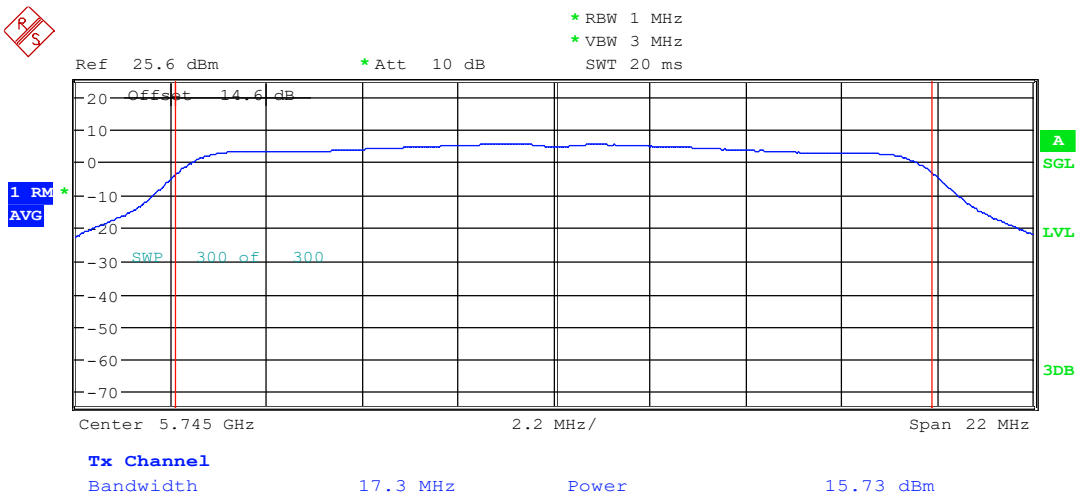
Tx Channel

Bandwidth	75.5 MHz	Power	11.98 dBm

Date: 5.MAY.2023 16:35:14

TX chain 1

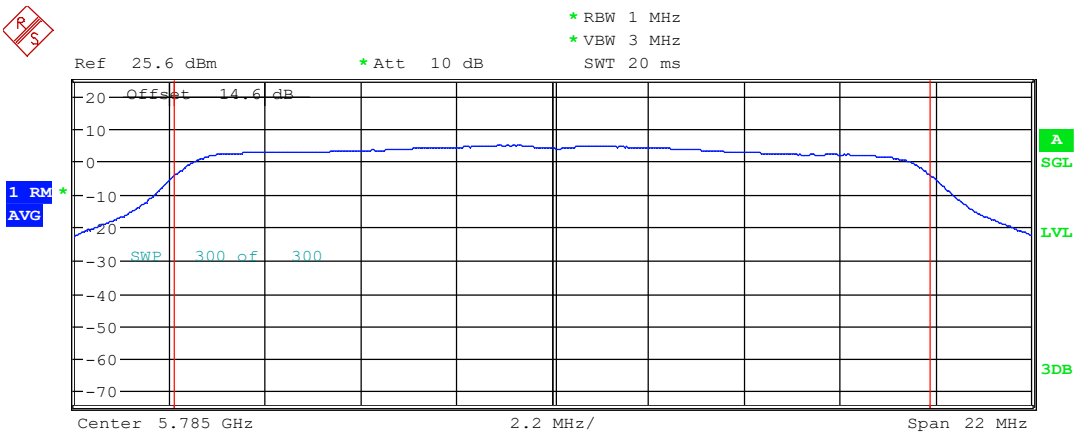
Plot # 21			
Tx Frequency: 5745 MHz	**Mode: 802.11 a**	**Data rate: 6 Mb/s**	**TX chain: 1**



Date: 6.MAY.2023 10:12:15

Plot # 22

Tx Frequency: 5785 MHz	Mode: 802.11 a	Data rate: 6 Mb/s	TX chain: 1



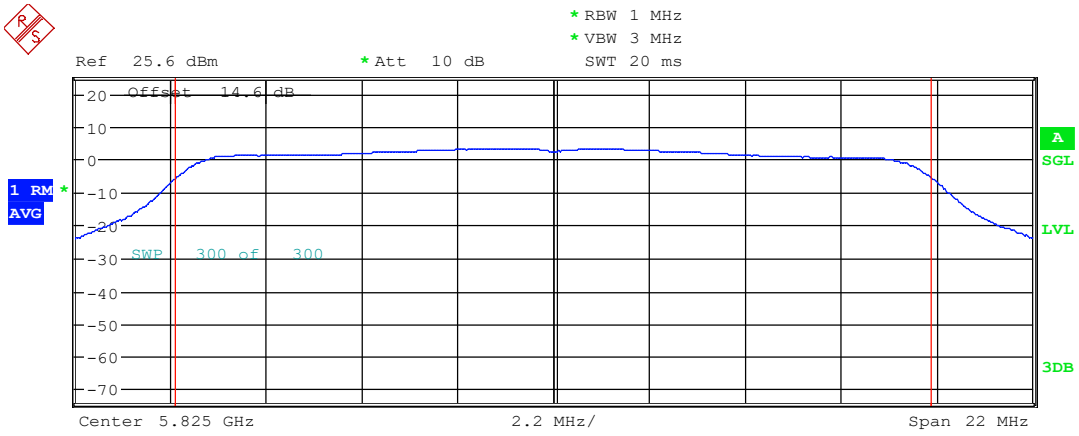
Tx Channel

Bandwidth 17.3 MHz Power 15.00 dBm

Date: 6.MAY.2023 10:17:06

Plot # 23

Tx Frequency: 5825 MHz	Mode: 802.11 a	Data rate: 6 Mb/s	TX chain: 1



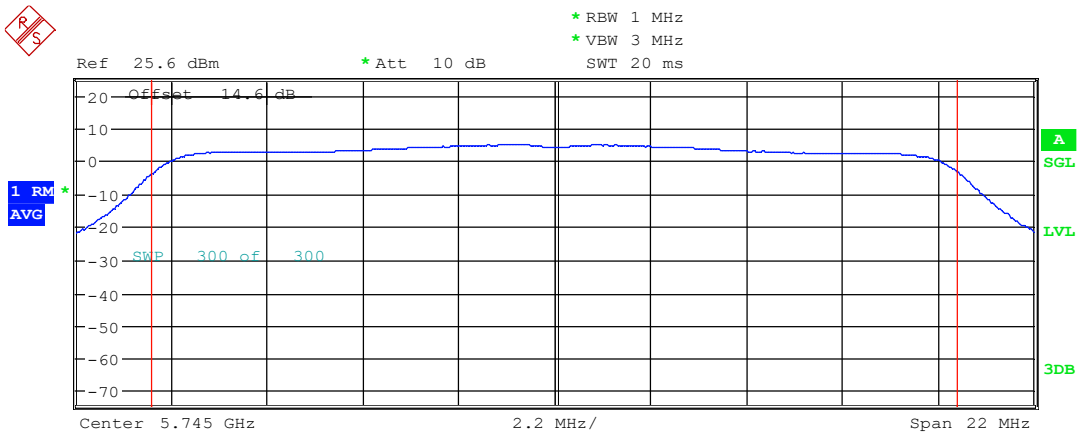
Tx Channel

Bandwidth 17.3 MHz Power 13.57 dBm

Date: 6.MAY.2023 10:18:38

Plot # 24

Tx Frequency: 5745 MHz	Mode: 802.11 n-HT20	Data rate: MCS0	TX chain: 1



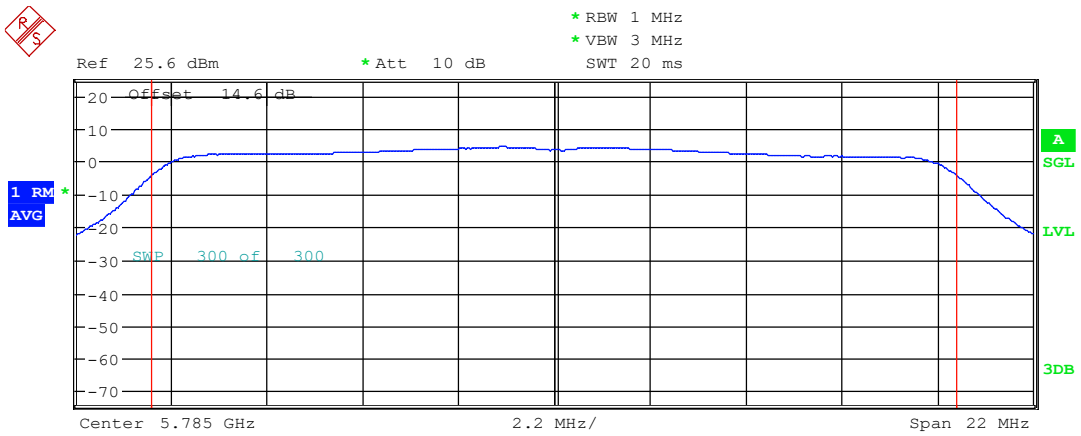
Tx Channel

Bandwidth 18.5 MHz Power 15.45 dBm

Date: 6.MAY.2023 10:45:07

Plot # 25

Tx Frequency: 5785 MHz	Mode: 802.11 n-HT20	Data rate: MCS0	TX chain: 1



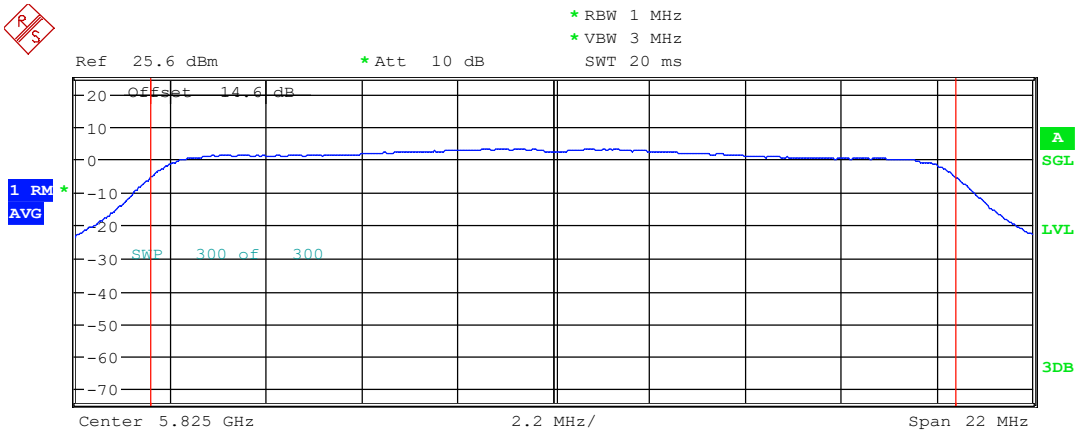
Tx Channel

Bandwidth 18.5 MHz Power 14.80 dBm

Date: 6.MAY.2023 10:40:31

Plot # 26

Tx Frequency: 5825 MHz	Mode: 802.11 n-HT20	Data rate: MCS0	TX chain: 1



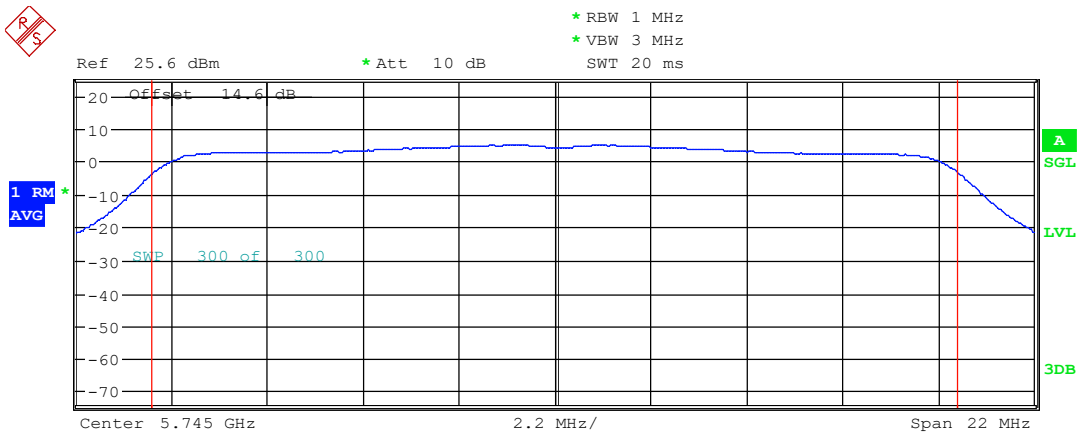
Tx Channel

Bandwidth 18.5 MHz Power 13.62 dBm

Date: 6.MAY.2023 10:31:15

Plot # 27

Tx Frequency: 5745 MHz	Mode: 802.11 ac-VHT20	Data rate: MCS0	TX chain: 1



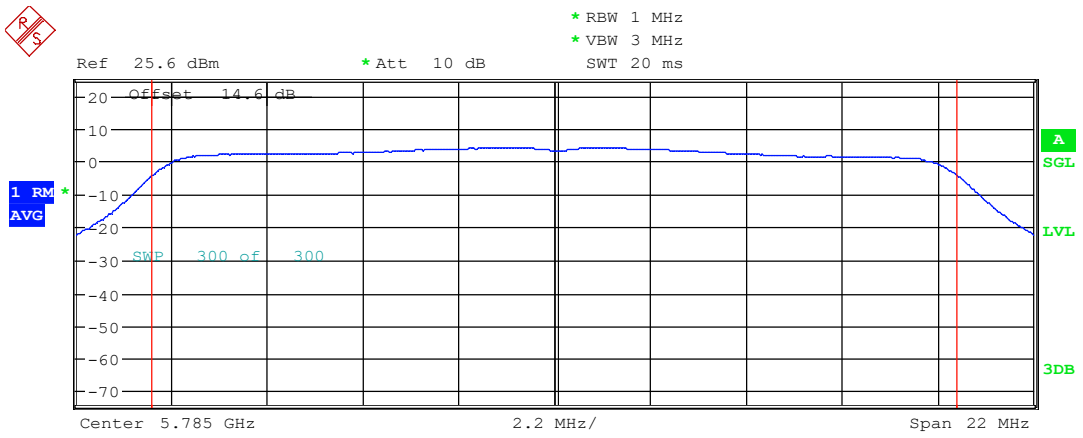
Tx Channel

Bandwidth 18.5 MHz Power 15.45 dBm

Date: 6.MAY.2023 10:47:18

Plot # 28

Tx Frequency: 5785 MHz	Mode: 802.11 ac-VHT20	Data rate: MCS0	TX chain: 1



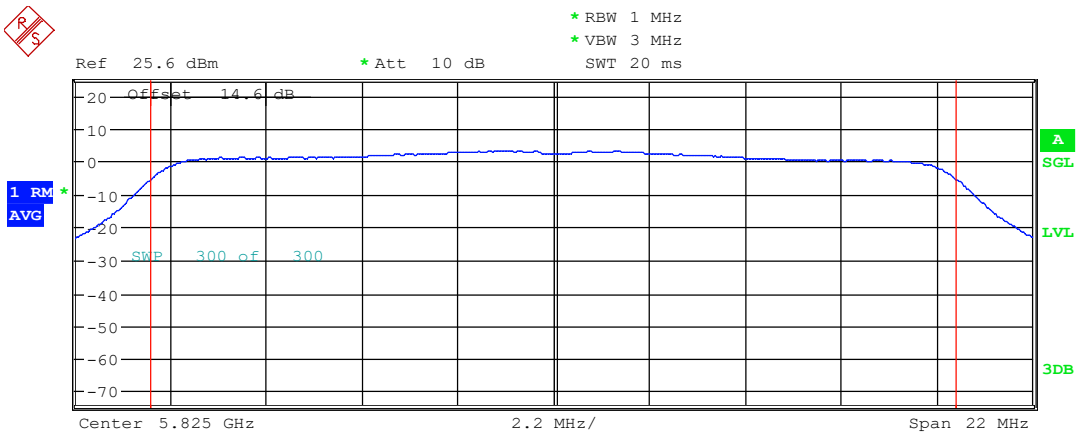
Tx Channel

Bandwidth 18.5 MHz Power 14.72 dBm

Date: 6.MAY.2023 10:37:17

Plot # 29

Tx Frequency: 5825 MHz	Mode: 802.11 ac-VHT20	Data rate: MCS0	TX chain: 1



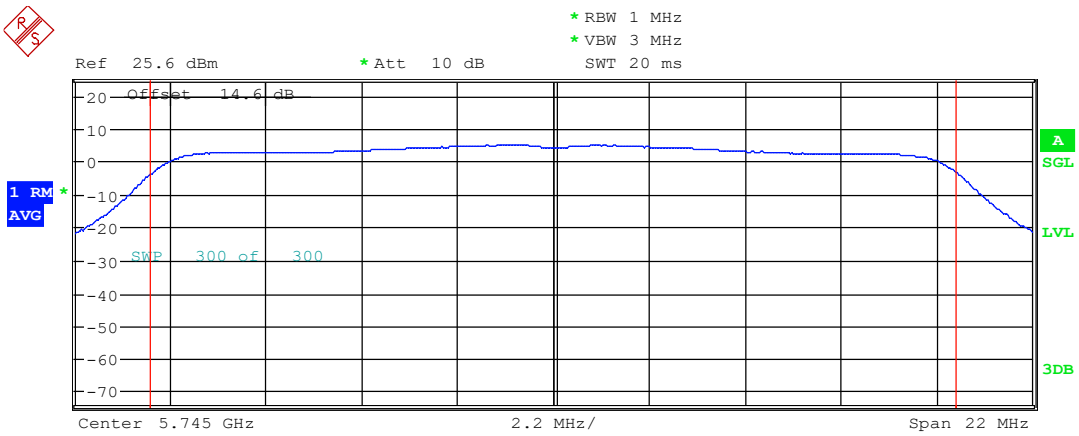
Tx Channel

Bandwidth	18.5 MHz	Power	13.57 dBm

Date: 6.MAY.2023 10:32:46

Plot # 30

Tx Frequency: 5755 MHz	Mode: 802.11 n-HT40	Data rate: MCS0	TX chain: 1



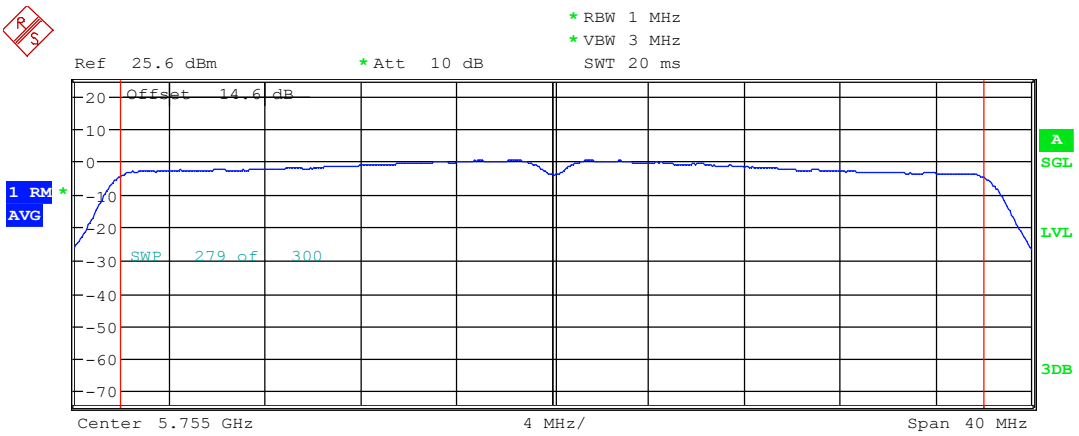
Tx Channel

Bandwidth 18.5 MHz Power 15.45 dBm

Date: 6.MAY.2023 10:45:07

Plot # 31

Tx Frequency: 5795 MHz	Mode: 802.11 n-HT40	Data rate: MCS0	TX chain: 1



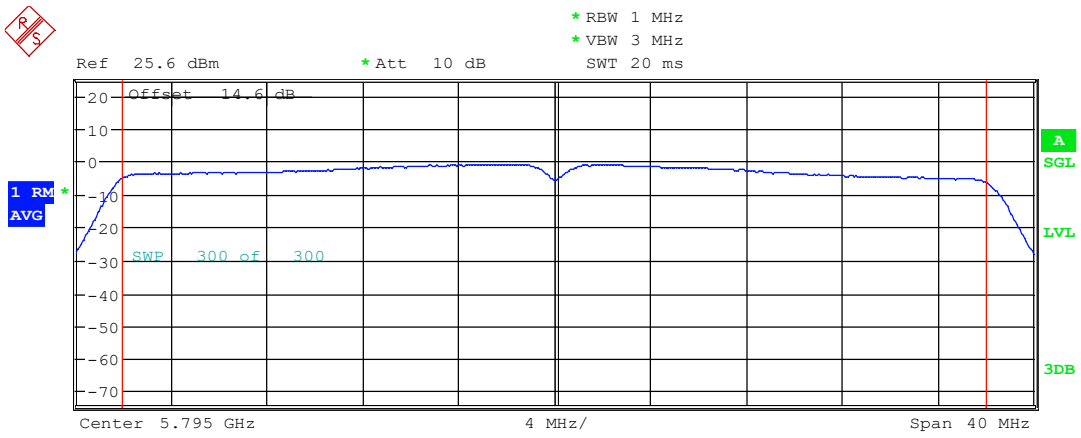
Tx Channel

Bandwidth 36 MHz Power 13.35 dBm

Date: 6.MAY.2023 10:04:37

Plot # 32

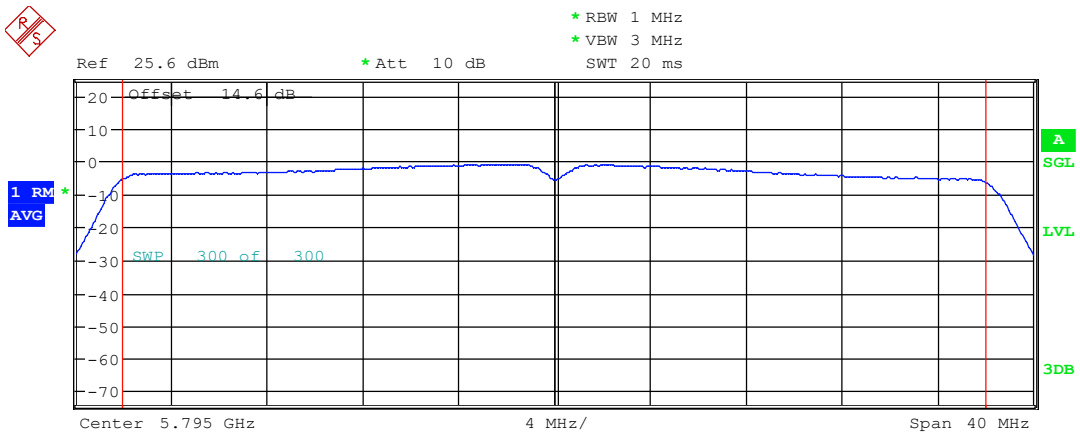
Tx Frequency: 5755 MHz	Mode: 802.11 ac-VHT40	Data rate: MCS0	TX chain: 1



Date: 6.MAY.2023 09:57:43

Plot # 33

Tx Frequency: 5795 MHz	Mode: 802.11 ac-VHT40	Data rate: MCS0	TX chain: 1



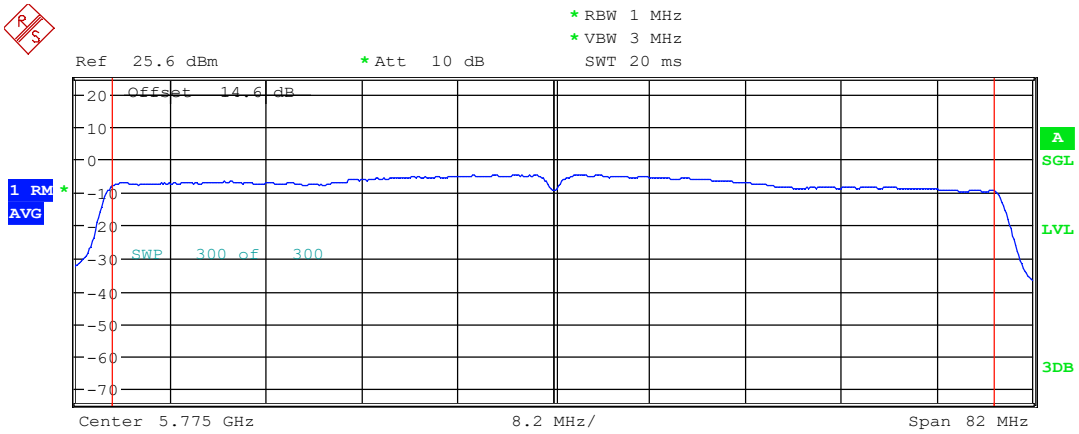
Tx Channel

Bandwidth 36 MHz Power 12.15 dBm

Date: 6.MAY.2023 09:32:43

Plot # 34

Tx Frequency: 5755 MHz	Mode: 802.11 ac-VHT80	Data rate: MCS0	TX chain: 1



Tx Channel

Bandwidth 75.5 MHz Power 11.42 dBm

Date: 6.MAY.2023 08:56:43